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PTO/SB/08A (10-96)

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)

Sheet 1 of 4

Complete if Known

Application Number 10/001,393
Filing Date October 23, 2001
First Named Inventor A. Vogel
Group Art Unit
Examiner Name
Atty. Docket Number 43225.60194USPT

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U.S. PATENT DOCUMENTS

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|----------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
| | | Number | Kind Code ² (if known) | | | |
| MH | AA | 4,543,399 | | Jenkins III et al. | 09-24-1985 | |
| | AB | 5,064,802 | | Stevens et al. | 11-12-1991 | |
| I | AC | 5,132,380 | | Stevens et al. | 07-21-1992 | |
| | AD | 5,153,157 | | Hlatky et al. | 10-06-1992 | |
| M | AE | 5,189,192 | | LaPointe et al. | 02-23-1993 | |

FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear | T ³ |
|----------------------|--------------------------|-------------------------|---------------------|--------------------------------------|--|--|---|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| MH | AF | EP | 0 089 691 | A2 | Union Carbide | 09-28-1983 | | |
| | AG | EP | 0 277 003 | A1 | Exxon Chemical | 08-03-1988 | | |
| I | AH | EP | 0 520 732 | A1 | Dow Chemical | 12-30-1992 | | |
| | AI | EP | 0 824 112 | A1 | Hoechst | 02-18-1998 | | |
| | AJ | WO | 94/25495 | A1 | Exxon Chemical | 11-10-1994 | | |
| M | AK | WO | 94/28032 | A1 | BP Chemicals | 12-08-1994 | | |

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) Date, page(s), volume-issue number(s), | T ² |
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| | AL | | |
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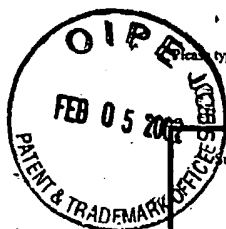
Examiner Signature Robert Hunt 5-18-04

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| | | | | First Named Inventor | |
| | | | | Group Art Unit | |
| | | | | Examiner Name | A. Vogel |
| Sheet | 2 | of | 4 | Atty. Docket Number | 43225.60194USPT |

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| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
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| | | Number | Kind Code ² (if known) | | | |
| mt | BA | 5,198,401 | | Turner et al. | 03-30-1993 | |
| | BB | 5,296,433 | | Siedle et al. | 03-22-1994 | |
| | BC | 5,321,106 | | LaPointe | 06-14-1994 | |
| | BD | 5,350,723 | | Neithamer et al. | 09-27-1994 | |
| mt | BE | 5,425,872 | | Devore et al. | 06-20-1995 | |

| FOREIGN PATENT DOCUMENTS* | | | | | | | | |
|---------------------------|--------------------------|-------------------------|---------------------|--------------------------------------|--|--|---|----------------|
| EXAMINER INITIAL* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear | T ⁴ |
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| mt | BF | WO | 97/43323 | A1 | Dow Chemical | 11-20-1997 | | |
| | BG | WO | 97/44371 | A1 | Dow Chemical | 11-27-1997 | | |
| / | BH | WO | 99/15534 | A1 | Dow Chemical | 04-01-1999 | | |
| mt | BI | WO | 99/42467 | A1 | Dow Chemical | 08-26-1999 | | |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | | |
|---|----------------------|--|----------------|--|
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| | BL | | | |
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| Examiner Signature | | Robert H. ... | 5-18-01 |
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| | | | First Named Inventor | A. Vogel | |
| | | | Group Art Unit | | |
| Examiner Name | | | | | |
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|-----------------------|--------------------------|----------------------|--------------------------------------|--|--|--|
| EXAMINER INITIAL* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number | Kind Code ² (if known) | | | |
| 147 | CA | 5,427,991 | | Turner | 06-27-1995 | |
| | CB | 5,453,410 | | Kolthammer et al. | 09-26-1995 | |
| | CC | 5,352,749 | | DeChellis et al. | 10-04-1994 | |
| | CD | 5,470,927 | | Turner et al. | 11-28-1995 | |
| | CE | 5,470,993 | | Devore et al. | 11-28-1995 | |
| | CF | 5,527,929 | | Timmers et al. | 06-18-1996 | |
| | CG | 5,721,185 | | LaPointe et al. | 02-24-1998 | |
| | CH | 5,883,204 | | Spencer et al. | 03-16-1999 | |
| | CI | 5,556,928 | | Devore et al. | 09-17-1996 | |
| | CJ | 5,616,664 | | Timmers et al. | 04-01-1997 | |
| | CK | 5,624,878 | | Devore et al. | 04-29-1997 | |
| | CL | 5,625,087 | | Devore et al. | 04-29-1997 | |
| 147 | CM | 5,626,087 | | Lompa | 05-06-1997 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|--------------------------|-------------------------|---------------------|--------------------------------------|--|--|---|----------------|
| EXAMINER INITIAL* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear | T ¹ |
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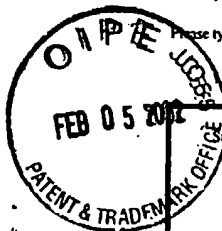
| | | | |
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| Examiner Signature | | <i>Wesley Hall</i> | 5-18-04 |
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| | | Number | Kind Code ² (if known) | | | |
| MM | DA | 5,643,847 | | Walzer, Jr. | 07-01-1997 | |
| | DB | 5,763,547 | | Kolthammer et al. | 06-09-1998 | |
| | DC | 5,783,512 | | Jacobsen et al. | 07-21-1998 | |
| MM | DD | 5,919,983 | | Rosen et al. | 07-06-1999 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|--------------------------|-------------------------|---------------------|--------------------------------------|--|--|---|----------------|
| EXAMINER INITIAL* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear | T ⁴ |
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| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | |
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| Examiner Signature | | <i>Robert H. [Signature]</i> | 5-18-04 |
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| | | | | Group Art Unit | 1754 |
| | | | | Examiner Name | |
| | | | | Attorney Docket Number | 43225.60194USPT |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials | Cite No. ¹ | Document Number Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| mt | AA | US-5,587,439 A | 12/24/1996 | DiMaio | |
| mt | AB | US-6,040,261 A | 03/21/2000 | Hlatky | |
| | | US- | | | |
| | | US- | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|-----------------------|--|--------------------------------|--|---|----------------|
| Examiner Initials | Cite No. ¹ | Foreign Patent Document Country Code ³ - Number ⁴ - Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| mt | AC | WO 98/03521 A | 01/29/1998 | Symyx Technologies | | |
| mt | AD | WO 98/09913 A | 03/12/1998 | University of MA | | |
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| | AE | Search Report, mailed 8/10/2002. | |
| mt | AF | HIRD et al., Solid Phase Synthesis of 2-Aminobutadienes Using a Piperazine Linker, <i>Tetrahedron Letters</i> , 1997, pp. 7111-7114, Vol. 38, No. 40, Elsevier Science Publishers, Amsterdam NL. | |
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|--------------------|---------------------|-----------------|---------|
| Examiner Signature | <i>Robert Stahl</i> | Date Considered | 5-18-04 |
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